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PRELIMINARY ASSESSMENT/ VISUAL SITE INSPECTION

SCHWINN BICYCLE COMPANY PLANT NO. 4
CHICAGO, ILLINOIS
ILD 047 584 198

FINAL REPORT

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Waste Programs Enforcement
Washington, DC 20460

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EXECUTIVE SUMMARY

Resource Applications, Inc. (RAI), performed a preliminary assessment and visual site inspection (PA/VSI) to identify and assess the existence and likelihood of releases from solid waste management units (SWMU) and other areas of concern (AOC) at the Schwinn Bicycle Company Plant No. 4 (Plant No. 4) facility in Chicago, Cook County, Illinois. This summary highlights the results of the PA/VSI and the potential for releases of hazardous wastes or hazardous constituents from SWMUs and AOCs identified. In addition, a completed U.S. Environmental Protection Agency (EPA) Preliminary Assessment Form (EPA Form 2070-12) is included in Attachment A to assist in prioritizing RCRA facilities for corrective action.

The Plant No. 4 facility manufactured welded bicycle frames. These frames were pretreated in a cyanide solution, phosphated, primed, and stored for further production at other Schwinn Bicycle Company (Schwinn) bicycle manufacturing facilities. The facility managed the following waste streams: spent solvents (F001, F002), paint waste (D001, D007), spent cyanide pretreatment solution (P030), and nonhazardous phosphate sludge. The facility operated at this location from April 1972 to July 1984. The facility occupies 7 acres and employed about 40 people. The Colovos Company currently owns and operates the facility as a warehouse for craftsman tools, table saws, lathes, and drill presses. The facility's current regulatory status is that of a nongenerator and is not regulated.

Plant No. 4 submitted a Notification of Hazardous Waste Activity form to EPA on July 28, 1980, designating the company as a generator and a treatment, storage, or disposal (TSD) facility. A RCRA Part A permit application was submitted on November 11, 1980, listing F001, F017, F018, and P030 wastes. The permit stated that F001, F017, and F018 wastes were managed in a 3,300-gallon capacity drum storage area (S01), while P030 wastes were managed in a 255,000-gallon-per-day capacity treatment tank (T01) and a 300-gallon capacity storage tank (S02). According to file information, the S02 tank managed product, not waste. The T01 treatment tank managed P030 wastes which, after being treated, became nonhazardous wastes. Therefore, the unit was not RCRA regulated and was incorrectly listed on the RCRA Part A permit application. The S02 tank was used to store cyanide pretreatment solution product prior to its use in the metal pretreatment process. Thus, the S02 storage tank was mistakenly put on the Part A permit application. F017 and F018 paint wastes were delisted by EPA in 1982. Plant No. 4 submitted a subsequent Notification of

Hazardous Waste Activity form to EPA on December 12, 1982. This notification indicated a change in regulatory status from a generator and a TSD to a generator only. The notification also listed a change in wastes generated to F001, F002, D001, and D007. Schwinn stated in a letter to IEPA on February 23, 1983, that the facility previously managed wastes for greater than 90 days, but, due to an increased ability to have wastes removed, no longer stored wastes at any facility for greater than 90 days. Schwinn submitted a closure plan that encompassed three different Schwinn facilities including Plant No. 4. Closure of Plant No. 4 was denied by IEPA for not providing a signed statement certifying closure. Keck, Mahin & Cate, attorneys representing Schwinn, requested an amendment to the original closure plan. The amendment request excluded Plant No. 4 from RCRA closure certification. The attorneys felt that Plant No. 4 should be exempt from RCRA closure based on the premise that the facility was not a generator of hazardous wastes and that hazardous wastes were never stored on site for greater than 90 days. This information contradicts a February 23, 1983 letter from Schwinn to IEPA that stated that hazardous wastes were previously stored at the facility for greater than 90 days. The closure plan amendment did not include any information about the T01 treatment tank (SWMU 2); however, the amendment to the closure plan was approved by IEPA. IEPA conducted a Closure Verification Inspection of Plant No. 4 on July 14, 1986 and confirmed the facility's S01 drum storage area (SWMU 1) as closed. The inspection also indicated that there were no remaining operating RCRA-regulated units. The closure inspection verified that the facility was closed according to an approved closure plan and stated that the facility is no longer regulated by RCRA. The facility's RCRA Part A permit application was withdrawn by IEPA on July 29, 1986. On August 5, 1988, IEPA determined that all matters concerning closure of the facility were considered resolved.

The facility was built in 1964 and owned by the Northwestern Mutual Life Insurance Company (NML). Schwinn leased the facility from NML and manufactured bicycle frames from April 1972 to 1984. Plant No. 4 employed about 40 people working a single shift. The facility was vacant from 1984 to 1986. In 1986, the Colovos Company purchased the facility from NML and currently employs about 30 people. The Colovos Company uses the facility strictly as a warehouse to store industrial woodworking tools. No information about facility operations from 1964 to 1972 was available. Prior to 1964, the facility property was vacant land.

The PA/VSI identified the following two SWMUs at the facility:

Solid Waste Management Units

1. Former Drum Storage Area
2. Former Cyanide Pretreatment System

No AOCs were identified at the Plant No. 4 facility.

There is no history of documented releases from the Former Drum Storage Area (SWMU 1). The unit currently manages no hazardous wastes. No storm drains were located in the vicinity of the unit. Therefore, the potential for release to ground water, surface water, air, or on-site soils is low.

The Former Cyanide Pretreatment System (SWMU 2) has been removed from the facility. There is no history of documented releases from this unit. The unit was located indoors and rested on a 10-inch-thick, reinforced concrete floor. The floor of the remainder of the facility is 8-inch-thick concrete. Therefore, the potential for a release to ground water, surface water, air, or on-site soils is low.

Plant No. 4 is located at 4444 West Ohio Street in an industrial area and is bordered on the north by railroad tracks, beyond which is vacant land; on the northwest by the Northwest Chicago Waste to Energy Facility; on the west by Artline Incorporated's warehouse; on the south by the Damron Corporation industrial building; and on the east by the American Envelope Manufacturing Company. The nearest school, St. Francis of Assisi Elementary School, is located about 0.5 mile north of the facility. The nearest residences are located about 0.5 mile south of the facility.

The nearest surface water bodies, Garfield Park lagoons, are located about 1 mile southeast of the facility. The lagoons are used for recreational purposes. The lagoons are small lakes that have no discharge to other surface water bodies. Other surface water bodies include Humboldt Park lagoons which are located about 2 miles south of the facility. The Garfield Park and Humboldt Park lagoons are classified as palustrine, open water, permanently flooded, excavated wetlands. Drinking water is obtained from Lake Michigan located about 10 miles east of the facility. Ground water is

not used in this area for drinking or industrial purposes. The nearest drinking water well is located greater than 3 miles from the facility. Sensitive environments are not located on site.

RAI recommends that no further action be taken for the facility at this time.

1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC), received Work Assignment No. C05087 from the U.S. Environmental Protection Agency (EPA) under Contract No. 68-W9-0006 (TES 9) to conduct preliminary assessments (PA) and visual site inspections (VSI) of hazardous waste treatment and storage facilities in Region 5. Resource Applications, Inc. (RAI), TES 9 team member, provided the necessary assistance to complete the PA/VSI activities for the Schwinn Bicycle Company Plant No. 4 (Plant No. 4).

As part of the EPA Region 5 Environmental Priorities Initiative, the RCRA and CERCLA programs are working together to identify and address RCRA facilities that have a high priority for corrective action using applicable RCRA and CERCLA authorities. The PA/VSI is the first step in the process of prioritizing facilities for corrective action. Through the PA/VSI process, enough information is obtained to characterize a facility's actual or potential releases to the environment from solid waste management units (SWMU) and areas of concern (AOC).

A SWMU is defined as any discernible unit at a RCRA facility in which solid wastes have been placed and from which hazardous constituents might migrate, regardless of whether the unit was intended to manage solid or hazardous waste.

The SWMU definition includes the following:

- RCRA-regulated units, such as container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, and underground injection wells
- Closed and abandoned units
- Recycling units, wastewater treatment units, and other units that EPA has usually exempted from standards applicable to hazardous waste management units
- Areas contaminated by routine and systematic releases of wastes or hazardous constituents. Such areas might include a wood preservative drippage area, a loading or unloading area, or an area where solvent used to wash large parts has continually dripped onto soils.

An AOC is defined as any area where a release to the environment of hazardous waste or constituents has occurred or is suspected to have occurred on a nonroutine and nonsystematic basis. This includes any area where a strong possibility exists that such a release might occur in the future.

The purpose of the PA is as follows:

- Identify SWMUs and AOCs at the facility
- Obtain information on the operational history of the facility
- Obtain information on releases from any units at the facility
- Identify data gaps and other informational needs to be filled during the VSI

The PA generally includes review of all relevant documents and files located at state offices and at the EPA Region 5 office in Chicago.

The purpose of the VSI is as follows:

- Identify SWMUs and AOCs not discovered during the PA
- Identify releases not discovered during the PA
- Provide a specific description of the environmental setting
- Provide information on release pathways and the potential for releases to each medium
- Confirm information obtained during the PA regarding operations, SWMUs, AOCs, and releases

The VSI includes interviewing appropriate facility staff; inspecting the entire facility to identify all SWMUs and AOCs; photographing all visible SWMUs; identifying evidence of releases; making a preliminary selection of potential sampling parameters and locations, if needed; and obtaining additional information necessary to complete the PA/VSI report.

This report documents the results of a PA/VSI of the Plant No. 4 facility (EPA Identification No. ILD 047 584 198) in Chicago, Cook County, Illinois. The PA was completed on August 25, 1992. RAI gathered and reviewed information from the Illinois Environmental Protection Agency (IEPA), Federal Emergency Management Agency (FEMA), United States Geological Survey (USGS), National Oceanic and Atmospheric Administration (NOAA), United States Department of Agriculture (USDA), United States Department of the Interior (USDI), and from EPA Region 5 RCRA files. The VSI was conducted on August 26, 1992. It included interviews with facility representatives and a walk-through inspection of the facility. RAI identified two SWMUs and no AOCs at the facility.

RAI completed EPA Form 2070-12 using information gathered during the PA/VSI. This form is included as Attachment A. The VSI is summarized and two inspection photographs are included in Attachment B. Field notes from the VSI are included in Attachment C.

2.0 FACILITY DESCRIPTION

This section describes the facility's location; past and present operations; waste generating processes and waste management practices; a history of documented releases; regulatory history; environmental setting; and receptors.

2.1 FACILITY LOCATION

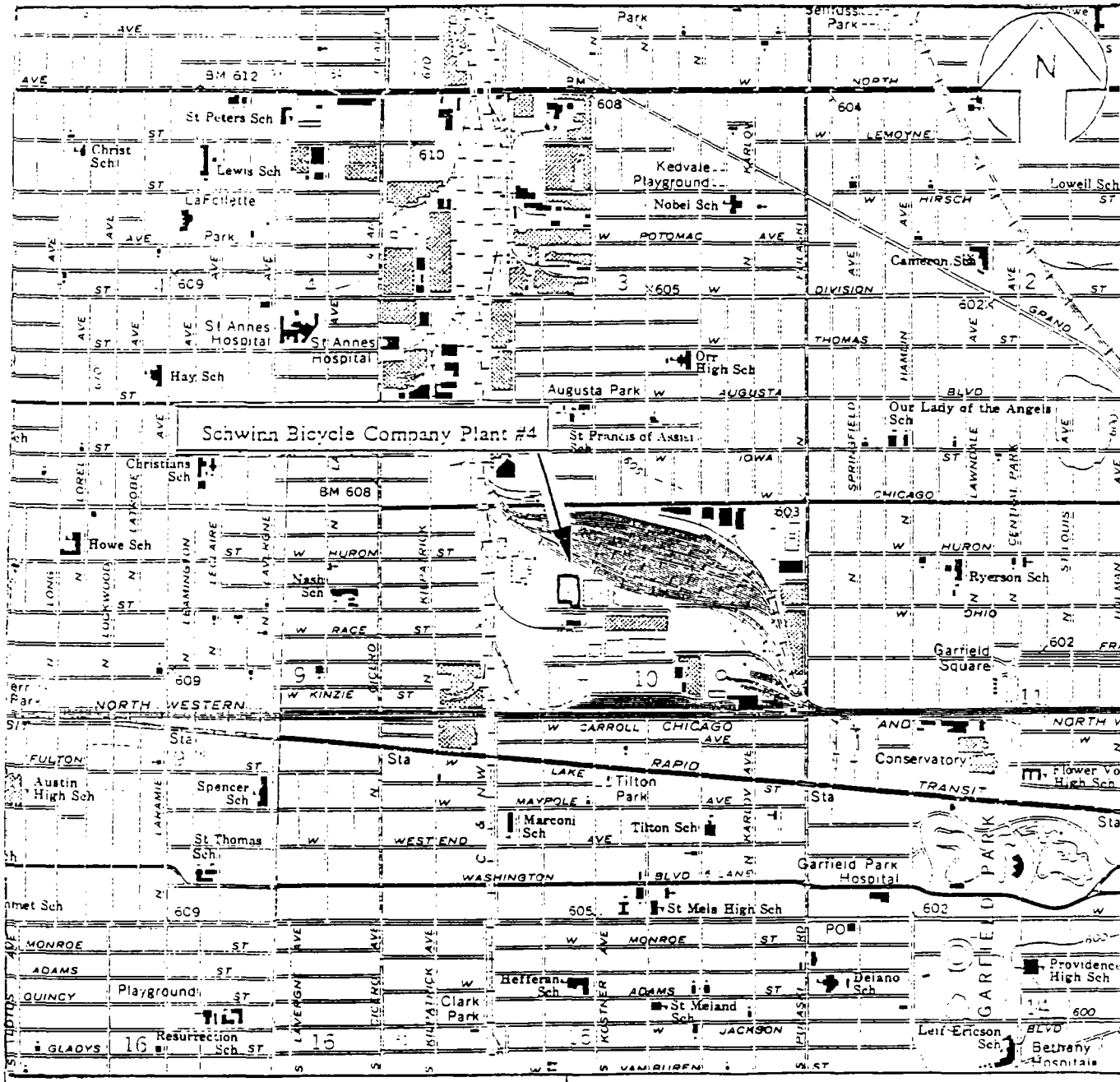
The Plant No. 4 facility is located at 4444 West Ohio Street in Chicago, Cook County, Illinois (latitude 41°53′29″ N and longitude 87°44′25″ W). The facility occupies 7 acres in an industrial area. The facility location and its relationship to surrounding topographic features is shown in Figure 1.

Plant No. 4 is bordered on the north by railroad tracks, beyond which is vacant land; on the northwest by the Northwest Chicago Waste to Energy Facility; on the west by Artline Incorporated's warehouse; on the south by the Damron Corporation industrial building; and on the east by the American Envelope Manufacturing Company.

2.2 FACILITY OPERATIONS

The facility was built in 1964 and owned by the Northwestern Mutual Life Insurance Company (NML). Schwinn leased the facility from NML and manufactured bicycle frames from April 1972 to 1984. Plant No. 4 employed about 40 people that worked a single shift. The facility was vacant from 1984 to 1986. In 1986, the Colovos Company purchased the facility from NML and currently employs about 30 people. The Colovos Company uses the facility strictly as a warehouse to store industrial woodworking tools. No information about facility operations from 1964 to 1972 was available. Prior to 1964, the facility property was vacant land.

Plant No. 4 manufactured welded bicycle frames. Raw materials consisted of tubular steel, cyanide pretreatment solution, phosphate anti-corrosion solution, and primer paint. Tubular steel was cut, bent into the proper shape, and welded to produce bicycle frames. The bicycle frames were



Schwinn Bicycle Company Plant #4
Chicago, Illinois

Figure 1
FACILITY LOCATION

Scale: 1:24,000
Source: Modified from USGS Topographical Map, 1978

Resource Applications, Inc.

transported, by conveyer, to the 300-gallon, indoor, aboveground, Former Cyanide Pretreatment System (SWMU 2). Bicycle frames were dipped into the tank to help the bicycle frame pretreatment coatings adhere to the metal bicycle frame. After pretreatment, bicycle frames were dipped into a phosphate dip tank to inhibit corrosion. The bicycle frames were then dipped into a primer paint dip tank. When dry, bicycle frames were warehoused inside the facility for further production at other Schwinn bicycle manufacturing facilities. Priming paint and solvent product were stored in a flammable liquids storage building that was separate from the main facility building.

Hazardous spent solvents and paint wastes generated at the facility were stored in the Former Drum Storage Area (SWMU 1). Spent cyanide pretreatment solution was treated in the Former Cyanide Pretreatment System (SWMU 2), which also served as a process tank. Plant No. 4 facility is currently used by the Colovos Company as a warehouse for the storage of table saws, lathes, band saws, and tools. The Colovos Company does not generate or store any hazardous wastes. Solid wastes generated from facility operations and the SWMUs where they are managed are discussed in detail in Section 2.3.

The Plant No. 4 facility property consists of a 100,000-square-foot main building and a 350-square-foot flammable liquids storage building. The flammable liquids storage building is located on the north side of the facility about 10 feet from the main building. A 62,000-square-foot asphalt parking lot is located on the north side of the building and is totally fenced in with a 10-foot-high chain-link fence topped with barbed wire. The Former Drum Storage Area (SWMU 1) is located outside, along the west boundary of the parking lot, along the chain-link fence. The Former Cyanide Pretreatment System (SWMU 2) was located indoors, in the eastern half of the main building. SWMUs and their current status are identified in Table 1. The location of SWMUs in relation to the facility layout is shown in Figure 2.

2.3 WASTE GENERATION AND MANAGEMENT

Present and past wastes generated at the facility are summarized in Table 2. SWMUs are discussed in detail in Section 3.0. Facility generation and management of both hazardous and nonhazardous wastes are discussed below. The primary waste streams generated at Plant No. 4 facility were spent solvents (F001, F002), paint waste (D001, D007), spent cyanide pretreatment

TABLE 1

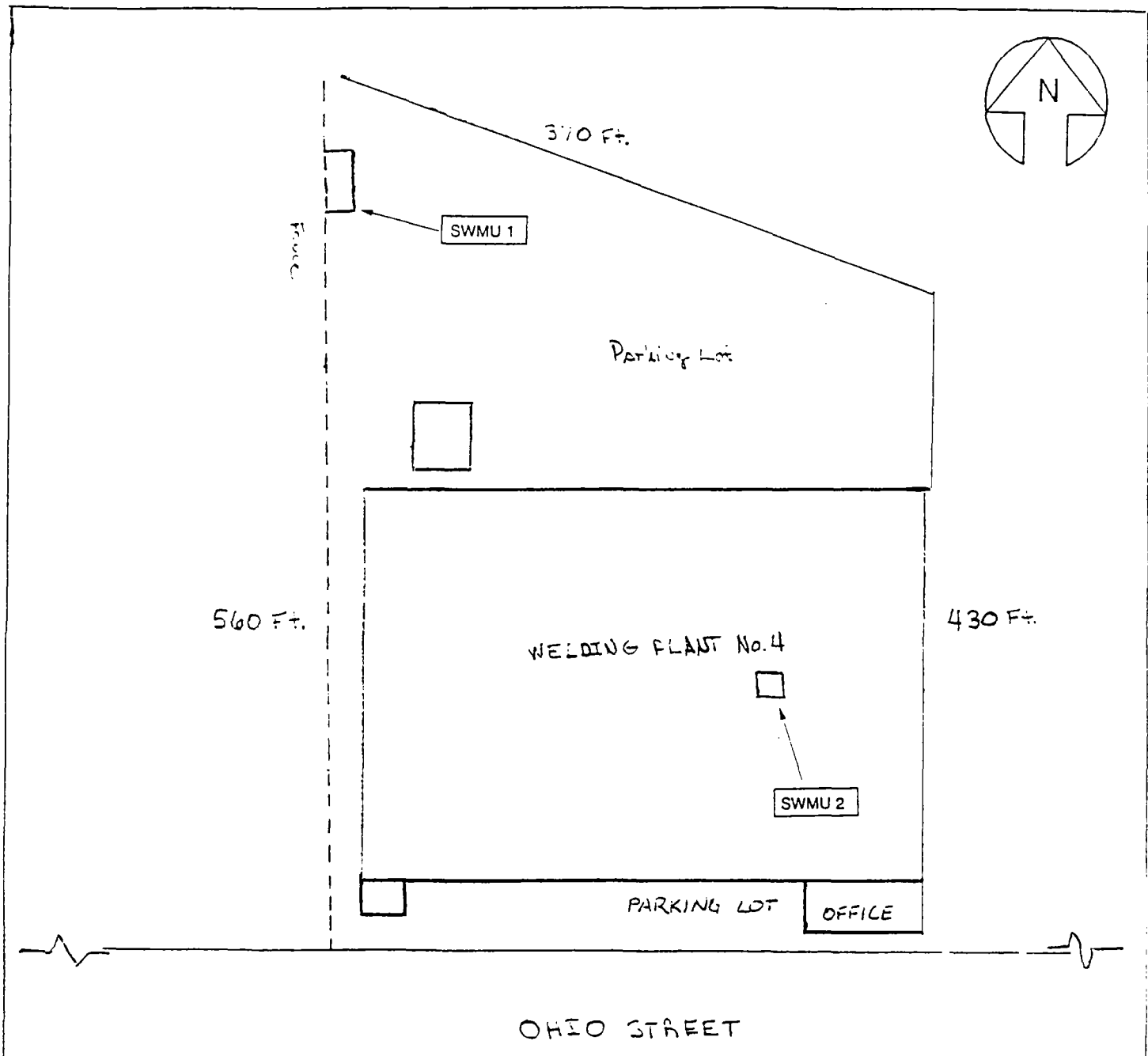
SOLID WASTE MANAGEMENT UNITS

SWMU Number	SWMU Name	RCRA Hazardous Waste Management Unit[a]	Status
1	Former Drum Storage Area	Yes	Inactive, RCRA closed by IEPA on July 14, 1986.
2	Former Cyanide Pretreatment System	No[b]	Inactive, removed from the facility prior to 1984.

Note:

[a] A RCRA hazardous waste management unit is one that currently requires or formerly required submittal of a RCRA Part A or Part B permit application.

[b] Part of this SWMU was mistakenly listed as a storage tank (S02) on the facility's RCRA Part A permit application, but the facility stated that it stored cyanide pretreatment solution product, not waste.



Source: Revised from Schwinn, 1980b

Solid Waste Management Units (SWMU)

1. Former Drum Storage Area
2. Former Cyanide Pretreatment System

Not to Scale

Schwinn Bicycle Company Plant No. 4
Chicago, Illinois

Figure 2
FACILITY LAYOUT

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TABLE 2

SOLID WASTES

Waste/EPA Waste Code[a]	Source	Solid Waste Management Unit
Spent Solvents/F001, F002	Process equipment cleaning operations	1
Paint Waste/D001, D007	Tank cleaning	1
Spent Cyanide Pretreatment Solution/P030	Production process	2
Phosphate Sludge/NA	Production process	1

Notes:

[a] Not applicable (NA) designates nonhazardous waste.

solution (P030) that is treated and discharged as a nonhazardous waste, and nonhazardous phosphate sludge.

Spent solvents (F001, F002) were generated during the cleaning of process equipment. Solvents were introduced into the primer paint dip tank to remove paint from the process tank. About 1,400 gallons of spent solvents were generated annually. Spent solvents were managed in 55-gallon drums which were transported to the Former Drum Storage Area (SWMU 1). Spent solvents were removed from SWMU 1 by a solvent recycler according to the facility's 1983 annual waste generation report (Schwinn, 1983c). Information regarding who transported and who recycled the spent solvent was not available during the PA/VSI.

Paint waste (D001, D007) was generated during periodic primer paint dip tank cleaning operations. The paint waste consisted of peeled and scraped paint from the tank interior, paint sludge collected from the bottom of the dip tank, and paper used to clean the dip tank. Plant No. 4's 1982 Annual Waste Generation Report stated that 2,800 gallons of paint waste were generated. The paint waste was managed in SWMU 1. A letter from Schwinn to IEPA on February 23, 1983 indicated that the paint waste was removed from the facility for disposal as a hazardous waste; however, information regarding who transported the paint waste and where it was disposed of was unavailable (Schwinn, 1983c).

Spent cyanide pretreatment solution (P030) was generated when cyanide pretreatment solution could no longer be used to pretreat metal bicycle frames in the Former Cyanide Pretreatment System (SWMU 2). Generated at a rate of about 1,500 gallons per day, spent cyanide pretreatment solution (P030) was managed and treated in SWMU 2 by adding chlorine and sodium hydroxide. The addition of these chemicals oxidized the cyanide in solution, turning it into nonhazardous cyanate. The nonhazardous cyanate solution was discharged from SWMU 2 directly into the sewers of the Metropolitan Sanitary District of Greater Chicago (MSD) (now known as the Metropolitan Water Reclamation District of Greater Chicago).

Nonhazardous phosphate sludge was generated in the phosphate dip process tank when the dip tank was periodically cleaned. The waste was scraped from the bottom and sides of the tank and placed in 55-gallon drums. The drums were managed in the Former Drum Storage Area (SWMU 1).

The waste was removed from the facility by a bulk carrier as nonhazardous waste. The rate of generation and the ultimate disposition of this waste was not available.

2.4 HISTORY OF DOCUMENTED RELEASES

There is no history of any documented releases at this facility.

2.5 REGULATORY HISTORY

Plant No. 4 submitted a Notification of Hazardous Waste Activity form to EPA on July 28, 1980, designating the facility as a generator and a treatment, storage, or disposal (TSD) facility (Schwinn, 1980a). A RCRA Part A permit application was submitted on November 11, 1980, listing F001, F017, F018, and P030 wastes. The permit stated that F001, F017, and F018 wastes were managed in a 3,300-gallon capacity drum storage area (S01) (referring to SWMU 1), while P030 wastes were managed in a 255,000-gallon-per-day capacity treatment tank (T01) (SWMU 2) and a 300-gallon capacity storage tank (S02) (SWMU 2) (Schwinn, 1980b).

The T01 treatment tank was a process tank that contained cyanide pretreatment solution. The solution, when spent, was treated with the addition of chlorine and sodium hydroxide which reacted with the cyanide creating a nonhazardous cyanate solution that was discharged as a nonhazardous wastewater. Therefore, the T01 treatment listed on the RCRA Part A permit application was incorrectly listed and was not required to be regulated (Schwinn, 1983b). According to file information the S02 tank was used to store cyanide pretreatment solution product prior to its use in the metal pretreatment process. Thus, the S02 storage tank did not manage waste and was mistakenly put on the Part A permit application (Schwinn, 1983b). Plant No. 4 submitted a subsequent Notification of Hazardous Waste Activity form on December 1, 1982. This notification indicated a change in regulatory status from a generator and a TSD to a generator only. The notification also listed a change in wastes generated to F001, F002, D001, and D007 wastes (Schwinn, 1982). Schwinn stated in a letter to IEPA on February 23, 1983, that the facility previously managed wastes for greater than 90 days; however, due to an increased ability to have wastes removed, the facility no longer stored wastes for greater than 90 days (Schwinn, 1983a).

Schwinn submitted a closure plan that addressed three separate Schwinn manufacturing locations, Plants 1, 2, and 4. Schwinn's closure attempt for all three locations was denied by IEPA for not providing a signed statement certifying closure by an independent professional engineer (IEPA, 1986c). In response IEPA's closure denial, Keck, Mahin & Cate, representing Schwinn, requested an amendment to the closure plan. The closure plan amendment request excluded Plant No. 4 from RCRA closure certification. The attorneys felt that Plant No. 4 should be exempt from RCRA closure based on the premise that the facility was not a generator of hazardous wastes and that hazardous wastes were never stored on site for greater than 90 days (Keck, Mahin, & Cate, 1986). This information contradicts a February 23, 1983 letter from Schwinn to IEPA that stated that hazardous wastes were previously stored at Plants No. 1, 2, and 4 for greater than 90 days (Schwinn, 1983a). The closure plan amendment did not include any information about the T01 treatment tank (SWMU 2); however, the amendment to the closure plan was approved by IEPA (IEPA, 1986a). IEPA conducted a Closure Verification Inspection of Plant No. 4 on July 14, 1986 and confirmed the facility's S01 drum storage area (SWMU 1) as closed (IEPA, 1986b). The inspection indicated that there were no remaining operating RCRA-regulated units. The inspection also verified that the facility was closed according to the approved closure plan and stated that the facility is no longer regulated by RCRA. The facility's RCRA Part A permit application was withdrawn by IEPA on July 29, 1986 (IEPA, 1986c). On August 5, 1988, IEPA determined that all matters concerning closure of the facility were considered resolved (IEPA, 1988).

Plant No. 4 is currently not regulated under RCRA. The Colovos Company currently owns and operates the facility and does not generate or store any hazardous wastes.

Past compliance problems at Plant No. 4 included failure to submit an annual waste generation report to IEPA for the facility (IEPA, 1983). Plant No. 4 submitted the required report (Schwinn, 1983c). Schwinn also failed to submit certification by the owner or operator of the facility and signed by an independent registered professional engineer indicating that the facility was closed in accordance with the specifications in the approved closure plan. IEPA required this certification 30 days after the final closure date indicated in the approved closure plan (IEPA, 1985).

The Plant No. 4 facility was not required to have any air permits. The facility has no documented history of odor complaints from area residents.

Plant No. 4 treated cyanide pretreatment solution by adding chlorine and sodium hydroxide to the solution. This treatment oxidized the cyanide in solution converting it to nonhazardous cyanate. The cyanate solution was discharged directly from the Former Cyanide Pretreatment System (SWMU 2) into the MSD sewers (Schwinn, 1980a). Information about sampling procedures prior to discharge or required municipal discharge permits was not available. Plant No. 4 did not discharge any wastes to surface water and was not required to have a National Pollutant Discharge Elimination System (NPDES) permit.

Currently, there are no underground storage tanks (UST) at the Plant No. 4 facility. File information indicates no previous existence of USTs at Plant No. 4.

File information indicates no documented history of CERCLA activity at Plant No. 4.

2.6 ENVIRONMENTAL SETTING

This section describes the climate; flood plain and surface water; geology and soils; and ground water in the vicinity of the facility.

2.6.1 Climate

The climate in Cook County is continental with cold winters and hot summers. The average daily temperature is 49.2 degrees Fahrenheit (°F). The lowest average daily temperature is 13.3°F in January. The highest average daily temperature is 83.3°F in July (NOAA, 1990).

The total annual precipitation for the county is 35.18 inches. The mean annual lake evaporation for the area is about 30 inches. The 1-year, 24-hour maximum rainfall is about 4.62 inches (NOAA, 1990).

The prevailing wind is from the west-southwest. Average wind speed is highest in April at 12.0 miles per hour (Ruffner, 1985).

2.6.2 Flood Plain and Surface Water

Plant No. 4 is located outside of the 100-year and 500-year flood plain in a Zone C flood plain which is an area of minimal flooding (FEMA, 1983).

The nearest surface water bodies are the Garfield Park lagoons located about 1 mile southeast of the facility and the Humboldt Park lagoons which are located about 2 miles south of the facility. Both Garfield and Humboldt Park lagoons are classified as palustrine, open water, permanently flooded, excavated wetlands (USDI, 1984). The lagoons are used for recreational purposes. Surface water drainage at the Plant No. 4 facility is primarily ponded and sluggish because the facility grounds are level. Any runoff discharges to the City of Chicago storm sewer system via storm sewers which are combined with the Chicago MSD. The ultimate disposition of surface water runoff is the Chicago River via discharge after treatment by the Chicago MSD.

2.6.3 Geology and Soils

Site specific information was not available, so regional information is presented here. The Schwinn facility is situated on Lake Plain deposits from glacial Lake Chicago (presently Lake Michigan). The Lake Plain deposits are a member of the Wadsworth Till of the Wedron Formation of the Pleistocene Epoch. The Wadsworth Till was deposited during the Wisconsinan glacial stage between approximately 12,500 and 22,000 years before present (BP) (Willman, 1971).

The region is generally characterized by areas of low relief, formed as deposits on the floor of the glacial lake. These deposits were flattened by wave action. A slightly elevated beach ridge of the former shoreline of Lake Chicago runs in a northeast-southwest direction and is located approximately 0.5 mile west of the site. The topography of the region gently slopes southeastward, away from the former shoreline and toward the present Chicago Sanitary and Ship Canal (USGS, 1980).

The Wadsworth Till is a gray till interbedded with sorted sediments and composed primarily of sheet-like deposits of silt and clay-sized particles separated by beds of waterlaid sand, gravel, or

silt. The thickness of the unconsolidated deposits in the vicinity of the site is approximately 50 feet (Willman, 1971).

The unconsolidated sediments in the region unconformably overlie bedrock of Silurian age. The uppermost bedrock unit is anticipated to be dolomite or a dolomitic limestone of the Niagaran and Alexandrian Formation. The Silurian age formations were most typically formed as reef deposits, while Illinois lay under a shallow sea between 400 and 435 million years BP. The thickness of the Silurian age formation in the vicinity of the site is approximately 200 to 250 feet (Willman, 1971).

Underlying the Silurian bedrock units is the Maquoketa Shale Group deposited during the Ordovician period which is approximately 200 feet thick in the vicinity of the site. The Maquoketa Shale Group is composed of several individual shale formations and a limestone formation deposited approximately 435 to 600 million years BP (Willman, 1971).

The older Ordovician and Cambrian bedrock units beneath the Maquoketa Shale Group are composed primarily of limestones and sandstones, and are typically in excess of 2,000 feet thick (Willman, 1971).

2.6.4 Ground Water

The till layer of the Wadsworth Till generally does not provide sufficient yields to be utilized as a drinking water source due to its low permeability. The localized interbedded sand, silt, and gravel deposits can yield moderate quantities of ground water. Recharge to the till and associated localized sand, silt, and gravel units typically occurs locally from precipitation (Bergstrom, et al., 1955).

The bedrock unit below the unconsolidated materials in the northern Illinois area is an important aquifer; however, ground water from this aquifer is not used as a drinking water source in the area of the site, due to the availability of water from Lake Michigan. Ground water in the Niagaran and Alexandrian aquifers is primarily obtained from joints, fissures, and solution cavities.

These water-bearing openings are irregularly distributed both vertically and horizontally in the units (Bergstrom, et al., 1955).

Beneath the Maquoketa Shale Group (a low permeability unit underlying the Silurian limestones) are the high yielding Ordovician and Cambrian age, Galesville and Mt. Simon Sandstones, and the Eau Claire and Franconia Formations. These units are frequently used aquifers in the northeastern Illinois region (Bergstrom, et al., 1955).

2.7 RECEPTORS

The Plant No. 4 facility occupies 7 acres in a industrial area in Chicago, Illinois. Chicago has a population of about 3,000,000 people.

The Plant No. 4 facility is bordered on the north by railroad tracks, beyond which is vacant land; on the northwest by the Northwest Chicago Waste to Energy Facility; on the west by Artline Incorporated's warehouse, on the south by the Damron Corporation industrial building; and on the east by the American Envelope Manufacturing Company. The nearest school, St. Francis of Assisi Elementary School is located about 0.5 mile north of the facility. The nearest residences are located about 0.5 mile south of the facility.

The nearest surface water bodies, Garfield Park lagoons located about 1 mile southeast, and Humboldt Park lagoons about 2 miles south of the facility are used for recreational purposes. The lagoons are small lakes that have no discharge to other surface water bodies.

Ground water is not used in this area for drinking or industrial purposes. There are no wells located within 3 miles of the facility.

Sensitive environments are not located on site. The nearest wetland areas are the Garfield Park lagoons located about 1 mile southeast of the facility. The lagoons are classified as palustrine, open water, permanently flooded, excavated wetlands (USDI, 1984).

3.0 SOLID WASTE MANAGEMENT UNITS

This section describes the two SWMUs identified during the PA/VSI. The following information is presented for each SWMU: description of the unit, dates of operation, wastes managed, release controls, history of documented releases, and RAI's observations. Figure 2 shows the SWMU locations.

SWMU 1 **Former Drum Storage Area**

Unit Description: The Former Drum Storage Area was located outdoors, along the western boundary of the parking lot, approximately 150 feet from the main building. The unit measured about 10 feet wide by 20 feet long. The unit had a capacity of 3,300 gallons. The Former Drum Storage Area was an open area on the 4-inch-thick asphalt parking lot that was not enclosed and did not have restricted access. There were no municipal storm sewers in the vicinity of the unit (see Photograph No. 1).

Date of Startup: This unit began operation on April 23, 1972.

Date of Closure: This unit became inactive in 1984 when the facility ceased operations. the unit was RCRA closed on July 14, 1986.

Wastes Managed: This unit managed spent solvents (F001, F002), paint waste (D001, D007), and nonhazardous phosphate sludge. Spent solvents were transported off site and recycled. Paint wastes were transported off site for disposal as a hazardous waste. Nonhazardous phosphate sludge was transported off site by a bulk carrier. The transporters and the ultimate destinations of the wastes were not available.

Release Controls: The unit contained no berms or dikes. The 4-inch-thick asphalt parking lot functioned as the floor of the unit.

History of Documented Releases: No releases from this unit have been documented.

Observations: During the VSI, no wastes of any kind were stored in the unit. The asphalt pavement floor was cracked in some areas and grass was growing through the cracks. There were no storm sewers in the vicinity of the unit. The unit was located along a 10-foot-high chain-link fence topped with barbed wire, beyond which was a vacant grass-covered lot. RAI noted no evidence of release.

SWMU 2 **Former Cyanide Pretreatment System**

Unit Description: The Former Cyanide Pretreatment System managed cyanide pretreatment solution. The waste was treated in this unit by the addition of chlorine and sodium hydroxide which oxidized cyanide in solution and converted it to nonhazardous cyanate. The unit was located indoors, in the eastern half in the center of the main building. The unit had a design capacity to treat 255,000 gallons of waste per day. The unit was removed from the facility at an unknown date prior to the facility ceasing operations in 1984. The dimensions of the unit and the capacity of the tank are not known. The tank was constructed of welded sheet steel and contained a bottom draw discharge valve that allowed for discharge of treated waste directly to the Chicago MSD. A floor drain was located next to the unit and was used to receive discharge of the treated nonhazardous industrial wastewater from the unit (see Photograph No. 2).

Date of Startup: The unit began operation on April 23, 1972.

Date of Closure: The unit became inactive and was removed from the facility at an unknown date prior to the facility ceasing operations in 1984. The entire facility was RCRA closed on July 14, 1986.

Wastes Managed:	This unit treated spent cyanide pretreatment solution (P030). The treated nonhazardous industrial wastewater was discharged directly into the Chicago MSD.
Release Controls:	This unit was located inside the facility's main building on an 10-inch-thick, reinforced concrete floor. The concrete floor of the rest of the facility is 8 inches thick. A floor drain is located within 5 feet of the location of this former unit. This floor drain was used to discharge nonhazardous wastewaters generated from this unit.
Documented Releases:	No releases from this unit have been documented.
Observations:	The unit has been removed from the facility. The unit was located indoors and rested on the concrete floor. A floor drain is located within 5 feet of the reinforced concrete area. The concrete floor was free of cracks or deterioration and no evidence of a release was observed. The area where the unit was formerly located was being used to store table saws, and other shop equipment.

4.0 AREAS OF CONCERN

RAI identified no AOCs during the PA/VSI and there have been no documented releases at the facility.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The PA/VSI identified two SWMUs at the Plant No. 4 facility. Background information on the facility's location; operations; waste generation and management practices; history of documented releases; regulatory history; environmental setting; and receptors is presented in Section 2.0. SWMU-specific information, such as the unit's description, dates of operation, wastes managed, release controls, history of documented releases, and observed condition, is presented in Section 3.0. AOCs are discussed in Section 4.0. Following are RAI's conclusions and recommendations for each SWMU. Table 3, at the end of this section, summarizes the SWMUs at the facility and the recommended further actions.

SWMU 1 **Former Drum Storage Area**

Conclusions: The Former Drum Storage Area was RCRA closed on July 14, 1986. There is no history of documented releases for this unit (see Section 2.5 for additional information). The unit currently manages no hazardous wastes. No storm drains were located in the vicinity of the unit. Therefore, the potential for release to ground water, surface water, air, or on-site soils is low.

Recommendations: RAI recommends no further action for this unit.

SWMU 2 **Former Cyanide Pretreatment System**

Conclusions: The Former Cyanide Pretreatment System has been removed from the facility. The entire facility was RCRA closed on July 14, 1986 (see Section 2.5 for additional information). There is no history of a documented releases for this unit. The unit was located indoors and rested on a 10-inch-thick, reinforced concrete floor. Therefore, the potential for a release to ground water, surface water, air, or on-site soils is low.

Recommendations: RAI recommends no further action for this unit.

TABLE 3

SWMU SUMMARY

SWMU	Dates of Operation	Evidence of Release	Recommended Further Action
1. Former Drum Storage Area	April 23, 1972 to 1984. RCRA closed on July 14, 1986.	None	No further action for this unit.
2. Former Cyanide Pre-Treatment System	April 23, 1972 to 1984. The entire facility was RCRA closed on July 14, 1986	None	No further action for this unit.

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Schwinn, 1983c. Annual Waste Generation Report, June 16.

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ATTACHMENT A

EPA PRELIMINARY ASSESSMENT FORM 2070-12

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IL	ILD 047 584 198

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Schwinn Bicycle Company Plant No. 4	4444 West Ohio Street

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Chicago	IL	60624-1036	Cook		

09 COORDINATES: LATITUDE 41° 53' 29".N | LONGITUDE 87° 44' 25".W

10 DIRECTIONS TO SITE *(Starting from nearest public road)*

Interstate 290 west from downtown Chicago, exit at Kostner Avenue North, turn left (west) on Lake Street, turn right (north) on Kilborn Street, turn right (east) on Ohio Street.

III. RESPONSIBLE PARTIES

01 OWNER *(if known)*	02 STREET *(Business, mailing residential)*		
Colovos Company	4444 West Ohio Street		
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 TELEPHONE NUMBER**
Chicago	IL	60624-1036	(312) 533-4444
07 OPERATOR *(if known and different from owner)*	**08 STREET *(Business, mailing, residential)***		
Colovos Company			
09 CITY	**10 STATE**	**11 ZIP CODE**	**12 TELEPHONE NUMBER**

13 TYPE OF OWNERSHIP *(Check one)*

■ A. PRIVATE ☐ B. FEDERAL: _____ *(Agency name)* ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL

☐ F. OTHER _____ *(Specify)* ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE *(Check all that apply)*

■ A. RCRA 3010 DATE RECEIVED: 11 / 11 / 80 (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE *(CERCLA 103 c)* DATE RECEIVED: / / (MONTH DAY YEAR) ■ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION

■ YES DATE 08 / 26 / 92

☐ NO

BY *(Check all that apply)*

☐ A. EPA ■ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR

☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ *(Specify)*

CONTRACTOR NAME(S): Resource Applications, Inc.

02 SITE STATUS *(Check one)*

■ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN

03 YEARS OF OPERATION

1964 (BEGINNING YEAR) | Present (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

No hazardous substances are currently generated at this location. Past operations generated solvent, paint, and cyanide wastes.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

No known potential hazard to the environment or population.

V. PRIORITY ASSESSMENT

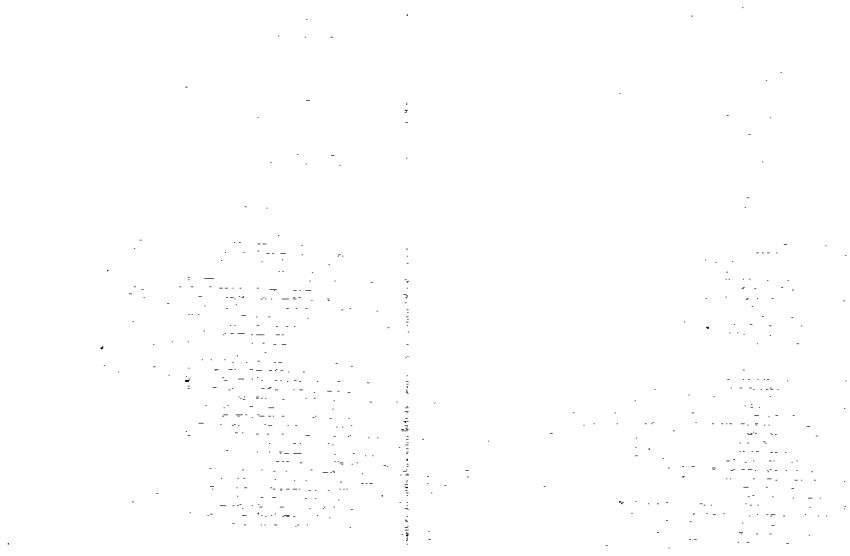
01 PRIORITY FOR INSPECTION *(Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents.)*

☐ A. HIGH *(Inspection required promptly)* ☐ B. MEDIUM *(Inspection required)* ■ C. LOW *(Inspect on time-available basis)* ☐ D. NONE *(No further action needed; complete current disposition form)*

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF *(Agency/Organization)*			03 TELEPHONE NUMBER
Kevin Pierard	EPA Region V			(312) 886-4448
04 PERSON RESPONSIBLE FOR ASSESSMENT	**05 AGENCY**	**06 ORGANIZATION**	**07 TELEPHONE NUMBER**	**08 DATE**
Patrick J. Muldowney, Jr.		Resource Applications, Inc.	(312) 332-2230	08 / 26 / 92 (MONTH DAY YEAR)

ATTACHMENT B
VISUAL SITE INSPECTION SUMMARY AND PHOTOGRAPHS



VISUAL SITE INSPECTION SUMMARY

Schwinn Bicycle Company Plant No. 4
4444 West Ohio Street
Chicago, IL
ILD 047 584 198

Date:	August 26, 1992
Primary Facility Representative:	Mr. Mark E. Levit (Plant Manager of Colovos Company)
Representative Telephone No.:	(312) 533-4444
Additional Facility Representatives:	Mr. Ron Wachowski (General Manager)
Inspection Team:	Patrick Muldowney, Jr., Resource Applications, Inc. (RAI) William Earle, RAI
Photographer:	Patrick Muldowney, Jr.
Weather Conditions:	Rain, temperature about 65°F
Summary of Activities:	The visual site inspection (VSI) began at 10:00 a.m. with an introductory meeting. The inspection team explained the purpose of the VSI and the agenda for the visit. Mr. Mark Levit then discussed the facility's past ownership and current operations, solid wastes generated, and release history. Mr. Levit had no records regarding past operations at the facility. The VSI tour began at 10:45 a.m. The interior of the main building was toured and the location of the Former Cyanide Pretreatment System (SWMU 2) was photographed. After touring the interior of the main building the inspection team proceeded to exit the main building, through the north exit to examine the flammable liquids storage room located in the north parking lot, about 10 feet away from the main building. The room was storing cardboard boxes and contained no flammable liquids, chemical products, or hazardous wastes. The inspection team then proceeded to the location of the Former Drum Storage Area (SWMU 1), located about 150 feet north of the main facility building, along the fence line of the western perimeter of the facility. No wastes were found at SWMU 1. The tour concluded at 2:00 p.m., after which the inspection team held an exit meeting with the facility representatives.

The VSI was completed and the inspection team left the facility at 2:30 p.m.

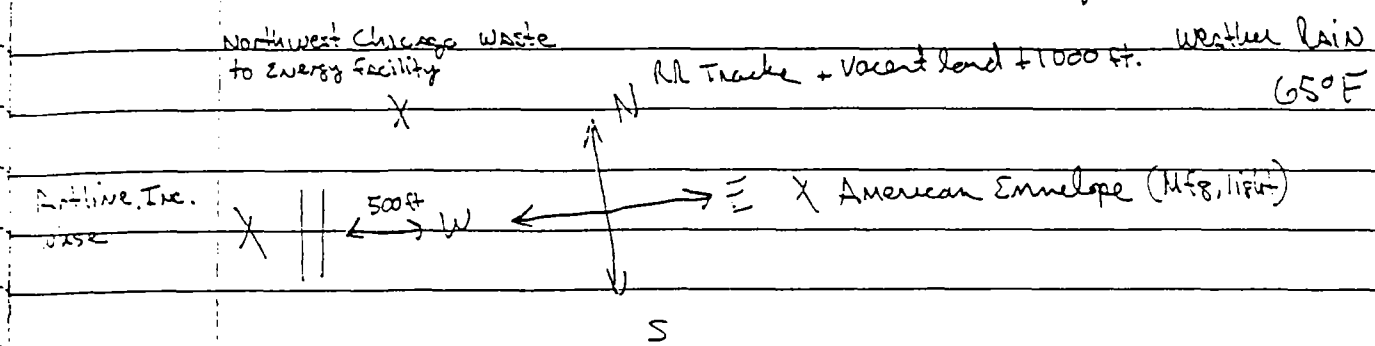
Photograph No. 1 Location: SWMU 1
Orientation: North Date: 8/26/92
Description: The approximate location of the Former Drum Storage Area is along the western fence line in the center of the photograph.

Photograph No. 2 Location: SWMU 2
Orientation: North Date: 8/26/92
Description: Location of The Former Cyanide Pretreatment System is identified by the indentations on the concrete floor. A floor drain is located beneath pallets containing grinding wheels.

ATTACHMENT C

VISUAL SITE INSPECTION FIELD NOTES

Schwinn Plant #4 August 26, 1992



- Currently Colorvue Company – they bought building in 1986
- 2 years previous the building was vacent
- Bildng was purchased from Northwestern Mutual Life Insurance Company.

- As of VSI facility is strictly a warehouse which stores woodwork tools such as band saws, table saws, lathes, spinders for sears craftsman brand tools.

- Building was built in 1962 & 1964
no asbestos
30 employees / one shift
wells for fire motor, heat – security – no
near yard 100% fenced 12 foot high w/ barbed wire - good cond
City water 100% – No wells.
100,000 sq ft 7.0 acres
no history of breakins

8/26-92

SWMU Former Tank Treatment Area - unit removed
no further information available.

SWMU Former Yard Storage Area → wastes stored at present
Asphalt 4 inch thick / along fence, property & facility extends
greater than 50 feet beyond fence.
located at the N/E corner of the facility

[redacted] Former Indoor drum Storage Area

Concrete floor 8 inch thick
cinder block walls
Steel door
Concrete sumps — w/ no floor drains
metal siding membrane tar + gravel.

Photo Log

1 1. Former Tank Treatment Area
2 2. Former Outdoor Drum Storage Area
3 3. Former Indoor Drum Storage Area

Schwinn Plant 4 / Colours COMPANY

E American Tumblers to East
S Danson Corp. to South
W Vacant land / Artline to west / NW Chicago Int'l Elec. Plant
N Vacant land / RR tracks

Explanation (by Pat) of RCRA and RFAs
meeting w/ MARK E LEVIT - Plant Manager
Patrick Muldowney - RAI
William Earle - RAI
Explanation of Schwinn Plant 4

Bought building in 1986, had been vacant for 2 years
Only electrical transformers, overhead (water & gas) pipes were present
No other equipment was present when colours company

Present operations: a warehouse for industrial woodworking tools (band saws, drill presses, etc.) purchased from the Northwestern
the building is same as before, some internal offices added

Northwestern Mutual Life

2 quart of oil - taken to AMOCO for recycling

Building built in early 60's (62 or 64)
wood, cardboard - recycled
No asbestos. don't know about
PCB on transformer
30 people, 1 shift
Wells Fargo security,
rear yard is fenced
no security guards
- water, sewer from City of Chicago
100,000 sq ft on 7 acres
No complaints from/to facility
Only facility that Cabrera has
Nearest School

Photo 1 rubber area